

We claim:

Please cancel claims 1-17 and add new claims 33-48. A detailed listing of the claims is provided, below.

1-17. (Canceled)

18. (Original) A system for interfacial nanoparticulate assembly, said system comprising:

a first fluid component;

a second fluid component dispersed by said first fluid component, said first and second fluid components at least partially immiscible one with the other, said immiscibility defining a fluid component interface; and

nanoparticulates assembled at said fluid component interface, at least one of said nanoparticulates comprising a substrate and a ligand component.

19. (Original) The system of claim 18 wherein said substrate is selected from a metal, a metal alloy, a metal oxide, a metal selenide, a metal sulfide and a combination thereof.

20. (Original) The system of claim 18 wherein said ligand component comprises a hydrophobic moiety.

21. (Original) The system of claim 20 wherein said moiety is selected from pyridine, tri-*n*-octylphosphine, vinylbenzene and a combination thereof.

22. (Original) The system of claim 18 wherein second fluid component comprises a reagent reactive with said ligand component.

23. (Original) The system of claim 22 wherein said ligand component comprises a vinylbenzene and said reagent is a free radical initiator.

24. (Original) The system of claim 22 wherein said ligand comprises a carboxylate and said reagent is selected from a polyfunctional amine and a polyfunctional alcohol.

25. (Original) The system of claim 18 wherein said first fluid component is hydrophobic, said second fluid component is aqueous and dispersed

in said first fluid component, and said assembled nanoparticulates comprise a substantially spherical capsule at said fluid component interface.

26. (Original) The system of claim 25 wherein said assembled nanoparticulates encapsulate said second fluid component upon removal of said first fluid component.

27. (Original) The system of claim 25 wherein said second fluid component further comprises a therapeutic agent.

28. (Original) The system of claim 25 wherein said second fluid component is aqueous and comprises a hydrophilic ligand.

29. (Original) The system of claim 28 wherein at least one of said nanoparticulate ligand and said hydrophilic ligand comprises a reactive functionality.

30. (Original) The system of claim 18 wherein said first fluid component comprises a polymer-solvent solution and said second fluid component comprises condensed atmospheric moisture, said condensate dispersed in an array on said solution surface.

31. (Original) The system of claim 30 wherein said assembled nanoparticulates define a cavity in said first fluid component upon removal of said second fluid component.

32. (Original) The system of claim 18 wherein said nanoparticulates comprise first and second nanoparticulates, said first nanoparticulates diametrically dimensioned less than said second nanoparticulates.

33. (New) A system for interfacial nanoparticulate assembly, said system comprising:

a first fluid component;

a second fluid component dispersed by said first fluid component, said first and second fluid components at least partially immiscible one with the other, said immiscibility defining a fluid component interface; and

nanoparticulates assembled at said fluid component interface, at least one of said nanoparticulates comprising a substrate and a ligand component comprising a hydrophobic moiety selected from pyridine, tri-*n*-octylphosphine, vinylbenzene and a combination thereof.

34. (New) The system of claim 33 wherein said substrate is selected from a metal, a metal alloy, a metal oxide, a metal selenide, a metal sulfide and a combination thereof.

35. (New) The system of claim 33 wherein second fluid component comprises a reagent reactive with said ligand component.

36. (New) The system of claim 35 wherein said ligand component comprises a vinylbenzene and said reagent is a free radical initiator.

37. (New) The system of claim 35 wherein said ligand comprises a carboxylate and said reagent is selected from a polyfunctional amine and a polyfunctional alcohol.

38. (New) The system of claim 33 wherein said first fluid component is hydrophobic, said second fluid component is aqueous and dispersed in said first fluid component, and said assembled nanoparticulates comprise a substantially spherical capsule at said fluid component interface.

39. (New) The system of claim 38 wherein said assembled nanoparticulates encapsulate said second fluid component upon removal of said first fluid component.

40. (New) The system of claim 38 wherein said second fluid component further comprises a therapeutic agent.

41. (New) The system of claim 38 wherein said second fluid component is aqueous and comprises a hydrophilic ligand.

42. (New) The system of claim 41 wherein at least one of said nanoparticulate ligand and said hydrophilic ligand comprises a reactive functionality.

43. (New) The system of claim 33 wherein said first fluid component comprises a polymer solvent solution and said second fluid component comprises condensed atmospheric moisture, said condensate dispersed in an array on said solution surface.

44. (New) The system of claim 43 wherein said assembled nanoparticulates define a cavity in said first fluid component upon removal of said second fluid component.

45. (New) The system of claim 33 wherein said nanoparticulates comprise first and second nanoparticulates, said first nanoparticulates diametrically dimensioned less than said second nanoparticulates.

46. (New) A system for interfacial nanoparticulate assembly, said system comprising:

a first fluid component comprising a polymer-solvent solution;

a second fluid component comprising condensed atmospheric moisture and dispersed by said first fluid component, said first and second fluid components at least partially immiscible one with the other, said immiscibility defining a fluid component interface, said condensate dispersed in an array on said first component solution surface; and

nanoparticulates assembled at said fluid component interface, at least one of said nanoparticulates comprising a substrate and a ligand component.

47. (New) The system of claim 46 wherein said assembled nanoparticulates define a cavity in said first fluid component upon removal of said second fluid component.

48. (New) The system of claim 46 wherein said nanoparticulates comprise first and second nanoparticulates, said first nanoparticulates diametrically dimensioned less than said second nanoparticulates.